PDR RID Report

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Review SDPS
Originator Ref
Priority 1

Category Name I&T
Actionee Project (Kempler) & HAIS
Sub Category Algorithm I&T
Subject Test Data

Description of Problem or Suggestion:

There are many types of information dependent on the I&T of science data processing software, including resource requirements, operations flow, safety, reliability, and verification of scheduling procedures. Besides the availability of the hardware and data processing software, there is a need for input test data to accomplish these tests and acquire useful information from them. There are many levels and types of test data, ranging from relatively trivial to extremely complicated and difficult to produce. The instrument teams have begun to think about the process of generating these test data sets, but there is a need for definition of the tests anticipated and the type(s) of data realistically needed to implement them.

Originator's Recommendation

ECS should clearly define the I&T tests required to provide the information needed (for example, as mentioned during the PDR). The type(s) of test data needed to fully implement these tests should then be defined. It should be recognized that perhaps all the test data required may not be feasible to produce, so ECS should be prepared to iterate on these requirements with the Project and the instrument teams and understand the implications of not being able to obtain some of the desired information.

GSFC Response by: **GSFC Response Date**

HAIS Response by: Suhrstedt **HAIS Schedule**
HAIS R. E. Dodge **HAIS Response Date** 5/10/95

The principal goal of the integration and test (I&T) of the science data processing software with ECS is to test the production readiness of the science software; i.e., ensure that the science software runs to normal completion repeatedly over the normal range of data inputs and run-time conditions (including nominal excursions) and executes without interfering with other S/W or DAAC operations. Additionally, information needed for the Planning and Processing Subsystems is entered into the Planning Subsystem Data Base during the science software I&T. Some of the items are supplied by the instrument team (e.g., data dependencies, activation rules, product file sizes), but other items must be determined during I&T (e.g., nominal resource profiles).

A conceptual data dictionary of the needed Planning data base elements has been published in the Technical Paper Planning Subsystem Data Base (440-TP-012-001), dated 17 February 1995. Following some further refinement, appropriate elements of the data dictionary will serve as one basis for establishing preliminary requirements for I&T testing of the science software. Working in conjunction with the Project science software test data (SSTD) interested parties, the characteristics of the test data can then be identified and the feasibility of producing test data with these characteristics can be assessed.

The following schedule is proposed in support of the TRMM mission:

Science Software I&T Requirements for Test Data (draft) End of May 1995
Project/HAIS review of draft Test Data Requirements June 1995
Science Software I&T Requirements for Test Data (Preliminary) July 26, 1995
CDR for TRMM Release August 1995
Science Software I&T Requirements for Test Data (Interim) September 1, 1995

Additional releases will be provided, if necessary, to reflect new Science Software I&T requirements.

Status **Closed** **Date Closed** **5/24/95** **Sponsor** **Marinelli**

****** **Attachment if any** ******

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